A Circuit and Method for Modeling I/O

Abstract of the Disclosure

A behavioral modeling technique that captures driver delay. The output characteristics of a typical driver are represented by two basic element types: switching and non-switching. Switching elements are functions of both time-varying and non-time-varying parameters, and non-switching elements are functions of non-time-varying parameters only. The outputs of these elements are characterized and tabulated by applying a DC voltage on the output of the driver and measuring the current through each element. The time-varying switching element are represent by time-controlled resistors. The invention provides a methodology to account for variations in input transition rate, supply voltage(s) or temperature.